

Date: Friday, 27/02/2009 10:36:10 AM  
 User: Julie Dawson

## Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : STOPPER
<b>Job Number</b> : 46110	
<b>Estimate Number</b> : 13246	
<b>P.O. Number</b> :	<b>Part Number</b> : D36953
<b>This Issue</b> : 27/02/2009 <b>S.O. No.</b> :	<b>Drawing Number</b> : D3695 REV.C
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : / / <b>Type</b> : MACHINED PARTS	<b>Drawing Revision</b> : C
<b>Previous Run</b> : 44854	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 13/03/2009
<b>Checked &amp; Approved By</b> : <u>JUD 09.02.27</u>	<b>Qty</b> : <u>4</u> <b>Um</b> : Each
<b>Comment</b> : Est Rev:A 08-03-27 new issue DD verified by:JLM Est Rev:B 09-02-20 rev.c as per dwg DD verified by:EC	

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	M6061T6B2500X03500	6061-T6 Bar 2.50 x 3.50
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**Comment:** Qty.: 0.3728 f(s)/Unit Total: 1.4910 f(s)  $\div 0.7456 = 2 \text{ piece}$

6061-T6 Bar 2.5"x-3.5"

BATCH: M110936

mmf 09/03/10

JL 09/03/04

2.0	BAND SAW	BAND SAW
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**Comment:** Cut blank 4.25" long

mmf 09/03/10 x2

JL 09/03/04

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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**Comment:** HAAS CNC VERTICAL MACHINING #1

1- Mill as per Folio FA733 Rev: AA & Dwg D3695 Rev: C

④

P10

2-Deburr per dwg D3695

3-TAP FOR 3/8"-16 HELICOIL

24 09/03/10

mmf 09/03/10

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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④

**Comment:** INSPECT PARTS AS THEY COME OFF MACHINE

mmf 09/03/10

5.0	QC8	SECOND CHECK
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


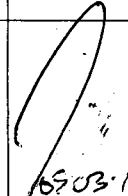




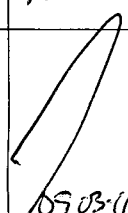




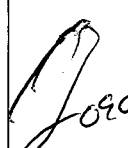
④

**Comment:** SECOND CHECK

B.A 09/03/11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3695-3 PAR #: NIA Fault Category: Prod/Machined Parts NCR: Yes No DQA: D Date: 05/03/10  
D3695-041/D412-761-099  
Resolution: Scrap Disposition: Scrap QA: N/C Closed: D Date: 05/03/10

NCR: <u>46110</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
04.03.10	3.0	THICKNESS 0.650 $\pm$ 0.10" IS 0.636" ON 2 PARTS. R.C. SET UP OF ORIGIN.	 04.03.10	<del>ACCEPTABLE DEVIATION.</del> <del>a piece good</del>	 09/03/10	 09/03/11	 04.03.10	 09/03/11
09/03/10	3.0	Note 3/8-24 Helicoil was Tap crooked R.C. operator error.	 09/03/10	Scrap & destroy No replace. Qty 1	 09/03/10	 09/03/11	 09/03/11	 09/03/11
09/03/10	3.0	base thickness is different because the piece move in machining operation. part was machine crooked	 09/03/10	Same as the top one, (is the top one) Scrap & destroy. No replace.	 09/03/10	 09/03/11	 09/03/11	 09/03/11

NOTE: Date & initial all entries

Date: Friday, 27/02/2009 10:36:10 AM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STOPPER

Job Number: 46110

Part Number: D36953

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

UMP/BR

09/03/12

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

UM109648

\*\*\*\*\*MASK ALL HOLES AS PER DWG D3695\*\*\*\*\*

START TIME:

13:55

OVEN TEMPERATURE:

320°

FINISH TIME:

14:25

UMP/FZ

09/03/17

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

09-03-17

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify with Dart part # using a fine point permanent marker and Stock

Location: 205

9/3/18

Se

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/03/19

Job Completion



mf  
09-03-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

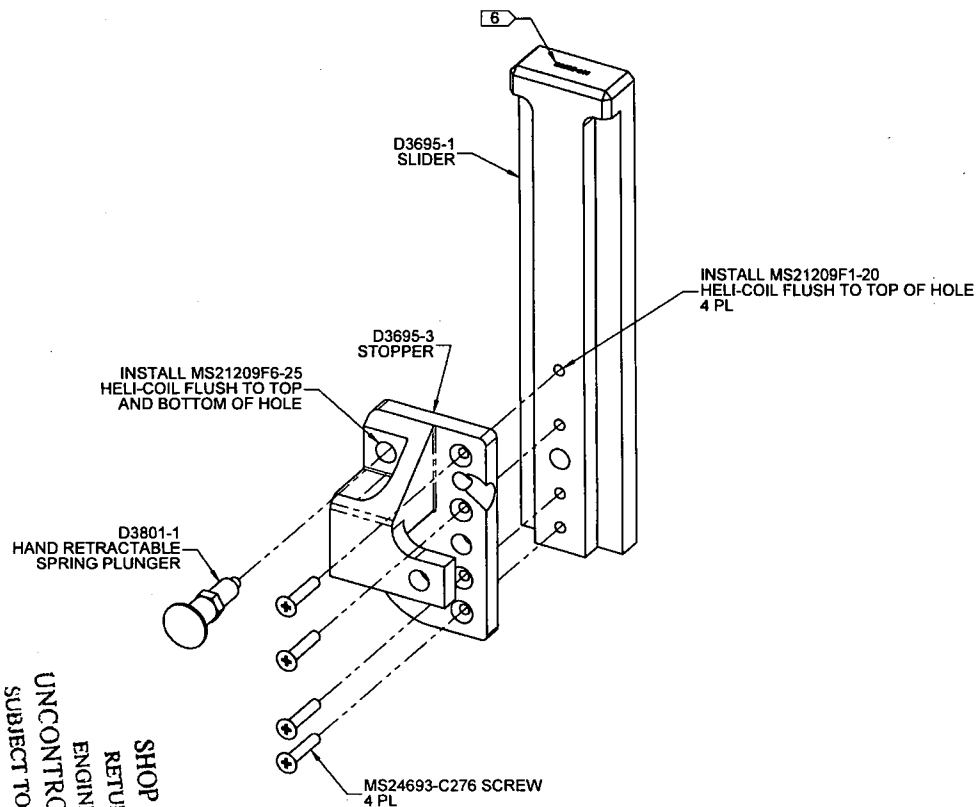
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

ITEM	QTY	P/N	DESCRIPTION
1	X	D3695-041	SLIDER ASSEMBLY
11	1	D3695-1	SLIDER
12	1	D3695-3	STOPPER
15	1	D3801-1	HAND RETRACTABLE SPRING PLUNGER
21	4	MS21209F1-20	HELI-COIL, SCREW LOCKING (RED)
22	1	MS21209F6-25	HELI-COIL, SCREW LOCKING (RED)
23	4	MS24693-C276	SCREW



**D3695-041 SLIDER ASSEMBLY**

**RELEASED**  
09/02/05 NTP

C	UPDATED BOM TO CURRENT STANDARDS; REVISED ITEM 12 (ZN D3-1) DIMS 1.83 AND 1.075 <sup>±.002</sup> WERE 1.81 AND 1.063 <sup>±.002</sup> (ZN B8-3 AND C4-3). REASON: COMPENSATE FOR PAINT THICKNESS AND ELIMINATE RATTLE UPON ASSEMBLY.	MB	08.11.04
B	P/N D3808-1 WAS WIP-510 (ZN C7-1 AND D3-1) - REASON: PURCHASED PARTS NOW PROCURED THROUGH D3801 SPEC CONTROL DRAWING	MB	08.06.26
A	NEW ISSUE	MB	08.03.14
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.11.04		
<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. <b>D3695</b> REV. C TITLE <b>SLIDER ASSEMBLY</b> SHEET 1 OF 3 SCALE NTS COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMPILED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

**D3695-041 NOTES:**

- 1) MATERIAL: NONE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3695-041" USING FINE POINT PERMANENT INK MARKER LOCATED APPROXIMATELY AS SHOWN
- 7) WEIGHT: D3695-041 = 0.64 lbs

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WITHOUT NOTICE  
WORK ORDER  
NO. 11010

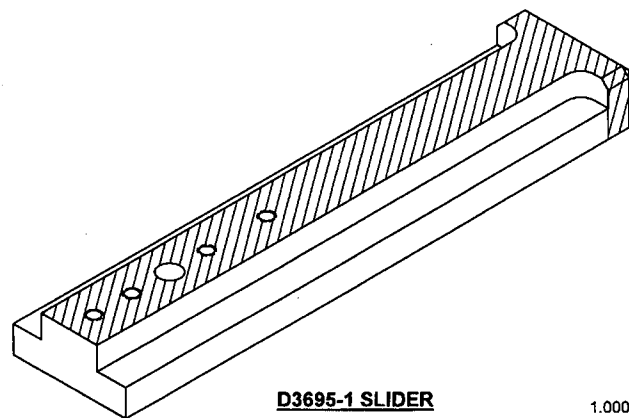
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

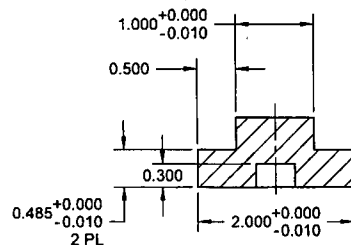
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

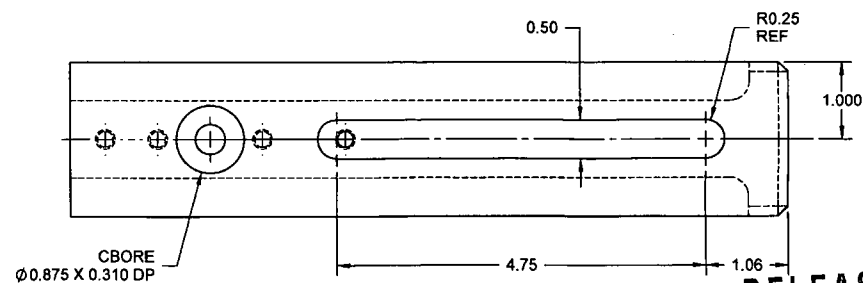
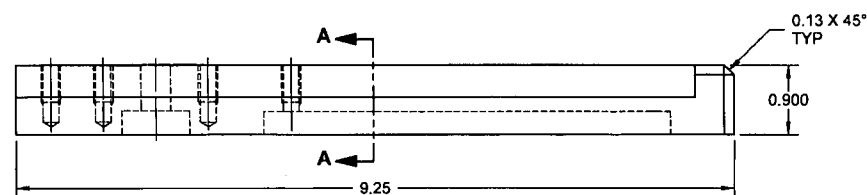
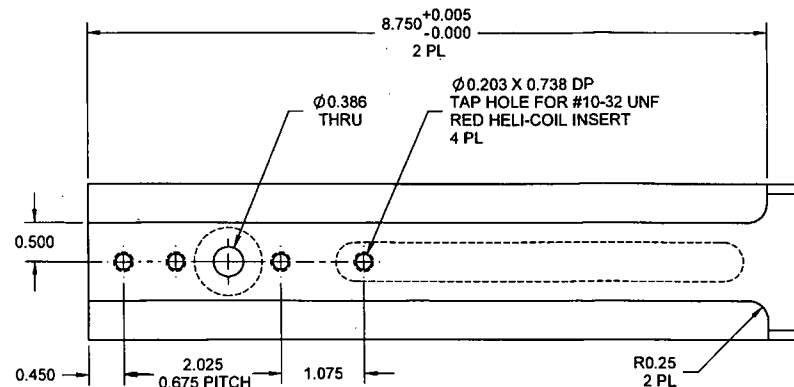
**NOTE:** Date & initial all entries



**D3695-1 SLIDER**



**SECTION A-A**



SHOP COPY  
RETURN TO  
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SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 17617

**D3695-1 NOTES:**

- 1) MATERIAL: 6061-T6 (OR 6061-T651/-T6510/-T6511/-T62) BAR  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GREY SANDTEX (4.3.5.6) PER DART  
QSI 005 4.3 - MASK ALL HOLES AND UNHATCHED AREAS
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.43lbs

**RELEASED**  
09/02/05

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. <b>D3695</b>	REV. C
MFG. APPR.			SHEET 2 OF 3
APPROVED		TITLE <b>SLIDER ASSEMBLY</b>	SCALE
DE APPR.			NTS
DATE	08.11.04	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

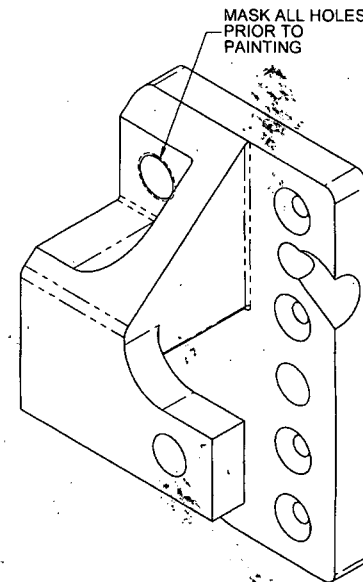
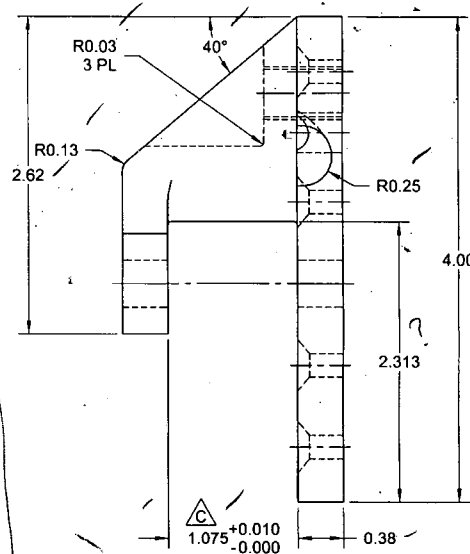
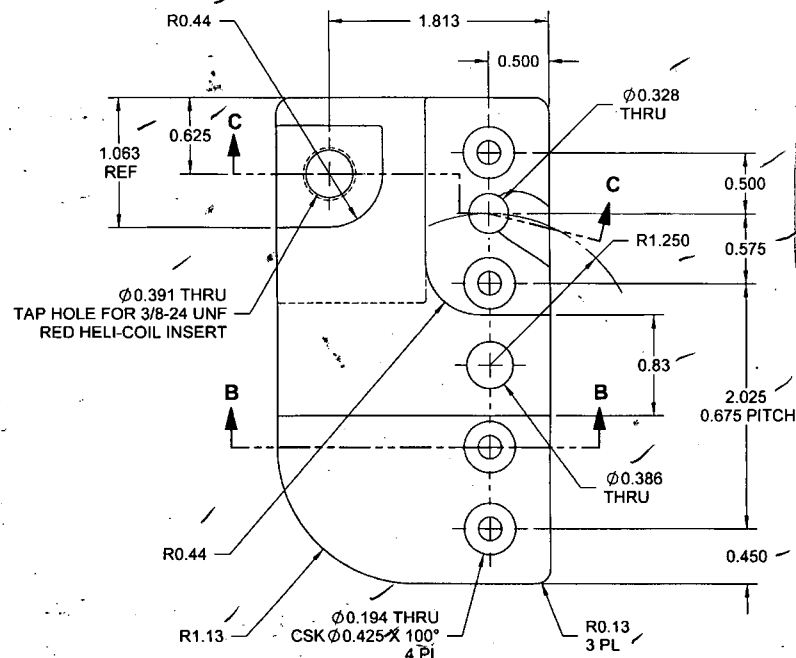
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries





MASK ALL HOLES  
PRIOR TO  
PAINTING

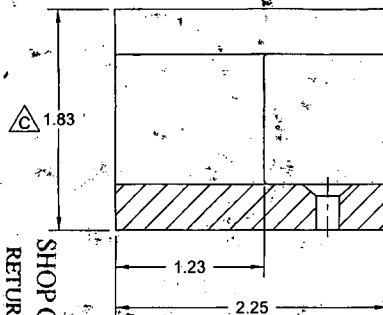
# **D3695-3 STOPPER**

**RELEASED**  
8/2/05 NWS

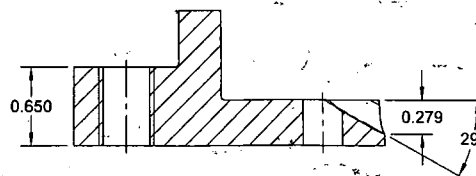
## **D3695-3 NOTES:**

- 1) MATERIAL: 6061-T6 (OR 6061-T651/-T6510/-T6511/-T62) BAR  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GREY SANDTEX (4.3.5.6) PER DART  
QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.19 lbs

DESIGN	16	<b>DART AEROSPACE LTD</b>	
DRAWN	16	HAWKESBURY, ONTARIO, CANADA	
CHECKED	16	DRAWING NO.	REV. C
MFG. APPR.	16	<b>D3695</b>	SHEET 3 OF 3
APPROVED	16	TITLE	SCALE
DE APPR.	16	<b>SLIDER ASSEMBLY</b>	NTS
DATE	08.11.04	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
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**SECTION B-B**



**SECTION C-C**

NO. 16  
WORK ORDER  
WITHOUT NOTICE  
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SUBJECT TO AMENDMENT  
ENGINEERING  
RETURN TO  
SHOP COPY  
NO. 16

26C1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 46110
<b>Description:</b> Slider		<b>Part Number:</b> A3695-3
<b>Inspection Dwg:</b> D3695	<b>Rev:</b> C	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.625	+ .010	.625	✓			
1.063	+ .010	1.062	✓			
Ø.391	+ .005 - .001	.392	✓			
Ø.194	+ .005 - .001	.195	✓			
.425x100°	+ .010 + .5°	.415x100°	✓			
Ø.386	+ .005 - 0	.388	✓			
.450	+ .010	.451	✓			
2.025	+ .010	2.025	✓			
.830	+ .010	.830	✓			
.575	+ .010	.575	✓			
.500	+ .010	.500	✓			
Ø.328	+ .005 - .001	.332	✓			
.500	+ .010	.501	✓			
1.813	+ .010	1.815	✓			
2.62	+ .030	2.616	✓			
1.075	+ .010 - 0	1.082	✓			
.38	+ .030	.371	✓			
2.313	+ .010	2.315	✓			
4.00	+ .030	4.001	✓			
1.83	+ .030	1.815	✓			
1.23	+ .030	1.20	✓			
2.25	+ .030	2.252	✓			
.650	+ .010	.649	✓			
.279	+ .010	.277	✓			

<b>Measured by:</b> mms	<b>Audited by:</b> H.A	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 07/03/10	<b>Date:</b> 09/03/11	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	